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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/018,847 | 12/27/2001 | Frank Osan | 1999/G-014 | 2191 |

7590 11/30/2004
Connolly & Hutz
PO Box 2207
Wilmington, DE 19899

EXAMINER

TRAN, THAO T

ART UNIT PAPER NUMBER

1711

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,847

Applicant(s)

OSAN ET AL.

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 11-30 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

1. In view of the Appeal Brief filed on August 30, 2004, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2. Claims 11-30 are currently pending in this application.

3. Upon further consideration, the finality of the rejection of the last Office action has been withdrawn.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 11-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker et al. (US Pat. 6,080,818) or Sustic (US Pat. 5,723,546), in view of Canich et al. (US Pat. 6,194,341).

Sustic and Thakker, each teach a method of making a polymer blend of a high molecular weight, atactic flexible polyolefin polyolefin and a low molecular weight, atactic polyolefin polymer; wherein the polymers are combined by mixing in a batch mixer or kneading in a molten state. The high molecular weight polyolefins have a molecular weight of between about 150,000 to 200,000 g/mol (See Sustic: abstract; col. 7, ln. 49-60); (Thakker: abstract; col. 12, ln. 45; col. 14, ln. 26-36).

The references further teach the polymer blend may be prepared by any conventional or other suitable method of combining the polymers. However, neither Sustic nor Thakker teaches the polymer are mixed in solution and separating off the solvent.

Canich a process for making bimodal or multimodal polymer products; wherein polymerization reaction occurs in a solution, the solvent is then evaporated off of the polymer, and the product is finally vacuum dried (see abstract; col. 32, ln. 44-50).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used solution polymerization, as taught by Canich, in the process of Sustic or Thakker, because both Sustic and Thakker teaches that any conventional process can be employed in preparing the polymer blend and would have yielded the same effects.

Since Sustic and Thakker teach the same high molecular weight and low molecular weight polyolefins, the viscosity ratio of the polymers would inherently be the same as the presently claimed invention.

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6. Claims 17-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker and Canich as applied to claim 11 above, and further in view of Breckner et al. (US Pat. 5,646,220).

Thakker, and Canich are as set forth in claim 11 above and incorporated herein.

Thakker further teaches the high molecular weight polyolefin being an aryl compound (see Thakker: col. 8, ln. 36-40).

The Thakker combination does not teaches the polymer blend comprising at least one cycloolefin copolymer as recited in the instant claims.

Breckner teaches a process of making cycloolefin copolymers as recited in the instant claims (see abstract; col. 2, ln. 1-67).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the cycloolefin copolymers, as taught by Breckner, in the polymer blend of Thakker combination, because Breckner teaches that the use of cycloolefins would enhance hight heat distortion resistance and high melt viscosity in the polymer blend (see col. 1, ln. 25-26).

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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November 24, 2004


THAO T. TRAN
PATENT EXAMINER